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POSITIONAL EXPERIENCE AND ACCURACY OF ROLE-COGNITIONS.

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THE CONCERN OF THIS PROJECT WAS TO ANALYTICALLY COMPARE THE VERIDICALITY AND ACCURACY OF THE SOCIAL ROLE COGNITIONS ABOUT PUBLIC SCHOOL TEACHERS--THAT IS, HOW SIMILAR ARE THE GENERAL PERCEPTIONS OF TEACHER BEHAVIOR TO THEIR ACTUAL BEHAVIOR (VERIDICALITY), AND HOW WELL MATCHED ARE THE PERCEPTIONS ATTRIBUTED TO TEACHERS TO THE ACTUAL BEHAVIORAL PERCEPTIONS HELD BY THE TEACHERS THEMSELVES (ACCURACY). ANTECEDENTS OF BOTH VERIDICALITY AND ACCURACY WERE ALSO EXPLORED, USING TWO INDEPENDENT VARIABLES OF POSITIONAL EXPERIENCE (AWARENESS) AND POSITIONAL DISTANCE (NONAWARENESS). DATA WERE COLLECTED BY QUESTIONNAIRE DURING GROUP INTERVIEWS. THE FORM HAD 50 ITEMS OF TEACHER BEHAVIOR IN A SPECIFIC BACKGROUND OR SETTING. RESPONDENTS INCLUDED TEACHERS, PARENTS, SCHOOL OFFICIALS, AND EDUCATION AND NONEDUCATION STUDENTS. IT WAS DETERMINED AFTER ANALYZING THE DATA OBTAINED FROM THE SAMPLE THAT POSITIONAL EXPERIENCE WAS NOT A POTENT ENOUGH VARIABLE TO PREDICT WITH MUCH RELIABILITY THE DEGREE OF VERIDICALITY AND ACCURACY IN TEACHER ROLE COGNITIONS. FURTHER RESEARCH WAS RECOMMENDED IN THE AREAS OF MOTIVATIONAL AND CONFLICT VARIABLES, VARIETIES OF CONSENSUS AND BEHAVIORAL UNIFORMITY. THE REPORT WAS PREPARED AS A THESIS AND AS A SUPPLEMENTARY DOCUMENT TO COOPERATIVE RESEARCH PROJECT NO. 371, ENTITLED "ROLE OF THE TEACHER AND OCCUPATIONAL CHOICE." (JH)

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POSITIONAL EXPERIENCE AND ACCURACY OF ROLE-COGNITIONS

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Presented to

the Faculty of the Graduate School

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In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

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Dr. Bruce J. Biddle, Thesis Supervisor

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I. Introduction

How do people gain the knowledge upon which to base social action? This is the broad problem of which the present investigation represents but one aspect.

More specifically, the concern of the present study was the veridicality and accuracy of social role-cognitions. That is, how similar cognitions about the behavior of members of a social position are to the actual behavior of position members (veridicality); and how well cognitions attributed to others actually match the cognitions held by those others (accuracy). It is obvious that both veridicality and accuracy may have important consequences for social action, social organization and disorganization, and what is sometimes called 'role conflict,' even though the precise nature of these consequences has by no means been fully delineated. Also an open question is: What are the antecedents of veridicality and accuracy?

In an attempt to answer this latter question, the independent variable positional experience (along with a closely related variable, positional distance) was investigated in relation to the accuracy and veridicality of role-cognitions held by education students and public school teachers. Data from a larger study of the role of the public school teacher in the Greater Kansas City Metropolitan Area were used (cf. Biddle, Rosencranz, & Rankin, 1961), and in general the role-theoretical orientation of the larger study was adopted.

Theoretical Orientation

The basic theoretical framework used was that of role theory--more specifically, role theory as delineated by Biddle and associates earlier in the project (cf. Biddle, Rosencranz, & Rankin, 1961, Vol. I; and Biddle, 1961). Role theory, broadly conceived, has received quite a bit of attention in the recent literature, and has provided the framework for a number of empirical investigations. However, strictly speaking, role theory, in the sense of a body of rigorously formed postulates, with derivable theorems, does not as yet exist, for any practical purpose. The variety of role theory used here is no exception: for the main part, it consists of a set of constructs and definitions. Unlike most other treatments, though, the present conceptualization is neither loose nor of so general and categorical a nature that operationalization is difficult.

Definition of terms. A central concept in role theory is that of position.

1. Position - a set of persons delineable in terms of similar behaviors (or features) exhibited, in terms of behaviors directed towards them by others, or for whom a unique cluster of cognitions is maintained either by themselves or others.

Further, positions may be labelled or not labelled. An example of a commonly labelled position is school-teachers.

Among the other person-concepts useful in role theory are the notions of object persons, subject persons, and sentient-object persons:

2. Object - an actor, a person who exhibits behavior. Whenever social action takes place, it is exhibited by an object.

3. Subject - a person who is presumed to hold cognitions about a social situation; more specifically, about an object or a sentient-object (see below).

4. Sentient-object - a person who is imputed by a subject to hold cognitions about a social situation; more specifically, about the characteristics of an object. It is not necessary that the sentient-object actually hold these cognitions.

The above three definitions may refer to a single person, a multi-person set without further specification, or to a position. Thus, one may speak of a "sentient-object position," for instance.

Other concepts used in this study are defined as follows:

5. Behavior - an event bounded by time consisting of a meaningful action taken by an object.

6. Cognitions - the mapping structures presumed to be maintained by individuals in social situations. Cognitions are modelled after the physical and social environments in which people live and behave and are utilized by individuals in structuring behavior. Classes of cognitions include expectations, positive norms, negative norms, and attributed expectations, attributed positive and negative norms, among others.

7. First-order cognitions - the cognitions maintained by subjects about social objects or events.

8. Second-order cognitions - the cognitions maintained by a subject about the presumed cognitions of a sentient-object.

9. Presentation - a cognition maintained by a subject consisting of a subjective probability map concerned with the incidence of a set of behaviors for another person or position.

10. Positive norm - a cognition maintained by a subject consisting of an evaluative map about desired behaviors for an object person or position. Positive norms may be stated as approval of certain amounts of some relevant behavior.

11. Negative norm - a cognition maintained by a subject consisting of an evaluative map about undesired behaviors of an object or object-position. A negative norm may be stated as disapproval of certain amounts of some relevant behavior.

12. Attributed expectation - an expectation held by a subject for the expectations of a sentient-object or sentient-object position.

13. Attributed positive norm - an expectation held by a subject for a positive norm of a sentient-object or sentient-object position.

14. Attributed negative norm - an expectation held by a subject for a negative norm of a sentient-object or sentient-object position.

15. Veridicality - similarity between a behavior and an expectation for that behavior, such that the behavior implies a more or less similar cognition.

16. Accuracy - similarity between a cognition attributed to a person or position and the cognition held by that person or position, such that the first-order cognition implies a more or less similar second-order cognition.

The concepts of the variables of cognitions and of 'behavior' are primitive elements in role theory as here conceived. Both accuracy and veridicality are theoretical definitions constructed solely of these primitives, placed in relationships of (1) similarity, and (2) antecedence-consequency (or implication).

In simpler language, veridicality refers to the degree to which an expectation correctly reveals, or maps, some real world event; and accuracy refers to the degree to which a second-order cognition correctly reveals or maps, a first-order cognition.

Review of the literature

Studies of teacher role. Though the literature on the role of the teacher is fairly extensive (see bibliography by Rankin and Biddle, 1960), not much of it has more than tangential relevance to the present study. First-order cognitions about the behavior of teachers have been examined by numerous investigators, often with the teacher as subject position. However, second-order cognitions, a component of the accuracy variable, have received less attention. Among the studies that have dealt with what teachers think that other positions expect of them or want them to do or not to do are Calloway (1951), Cook et al.

(1938), Klima (1949), Hamtiliar (1958), Phillips (1955), Rogers (1960), and Stacy (1950). None of these studies also assessed first-order cognitions for teacher behavior, and the question of accuracy was mentioned only in passing if at all.

Fewer still have measured both norms and expectations and attributed norms and expectations for teacher behavior. Gotesls and Jacks [illegible] kind norms held by public school teachers for the [illegible]ic school teachers in general, and expectations for such behavior attributed to other teachers, but reached no systematic conclusions in comparing the two that are pertinent to the accuracy question. Rogers (1953) studied expectations and norms held for teachers by male elementary school teachers, and expectations for such behavior attributed by these teachers to the community at large, but did not compare them.

Except for the work done by Gross, Mason, and McEachern (1958) on a related role, that of the school superintendent, by far the most detailed analysis in the area has stemmed from the current project (Biddle, Rosenthumm, & Rankin, 1961). In the analysis available when the thesis was formulated, positional differences had been shown to be related to accuracy. For instance, teachers were shown to be most accurate in attributing cognitions to teachers, as might be expected, school officials second most accurate, education students third most accurate, and pupils least accurate of these or several other positions studied. Similar results were found in the case of verticality.

No other studies available in the literature have dealt with the verticality of cognitions about teacher behavior. Indeed, in the role

area, interest has focused on what teachers think and not what they do--even what they say they do, as in the present study.

Other studies of accuracy and veridicality. The classical study of the accuracy of role-cognitions was done by Schank (1932), who found that members of a community in upstate New York almost universally attributed norms against cardplaying to other members of the community, when in fact almost no one disapproved of these activities. Following F. Allport, Schank called this condition "pluralistic ignorance."

Despite the catchy name for this one variety of accuracy, and the obvious importance of the accuracy and veridicality variables, there have been no sustained empirical attacks on the problem, nor has it received much theoretical attention, at least in the role area. These two variables have been mentioned in passing by several authors, but the usual case is either to assume high accuracy and veridicality or to disregard the issue.

Runmtveit (1954) has made by far the most sophisticated analysis of the nature of accuracy available in the literature, under the heading of normative "fictitiousness." Runmtveit informally suggests that fictitiousness may be a consequence of (1) "overcentralization," or (2) social stereotypy in a situation in which the holder of the fictitious norm has not had a chance to go through a checking and validating procedure. In his more formal theoretical treatment, however, these two notions are not followed up.

In a theoretical article, Brookover (1955) suggests that accuracy is positively related to "clarity of communication." He also states a

variant of Rommetveit's hypothesis about social stereotypy in new situations; and in which the very general and almost 'empty' hypothesis that "the actor's definition of others' expectations may vary with his own needs or perceptions as well as with his self-involvement...."

Not only clarity of communication, but also amount of communication is related to accuracy:

> ...the actor's definition of the role will change considerably as interaction in the group occurs. Communication goes on constantly and if others' expectations change, definitions of those expectations will also change.

A. P. Bates (1961) speculates that accuracy is affected by (1) the position of a person in the interaction network of a social system; (2) the individual's ability to "interpret the signals" from other persons; and (3) other unspecified psychological variables. Bates mentions the old label 'role-taking' for some of the above, but underlines the importance of communication in 'role-taking' processes.

In the previous four references, no empirical support was given for the propositions regarding accuracy.

Bott (1956) used the concept of social network in making empirical generalizations from a field study of marital norms and expectations held by members of urban families. A social network is a "boundaryless social configuration," and is characterized by degree of connectedness.

> In some cases many of the people known by a family knew and met one another independently of the family. These I have called highly connected networks. In other cases very few of the people known by a family knew and met one another independently of the family. These I have called disconnected networks. In between these two extremes were families with intermediate degrees of connectedness....

Bott found differences in degree of accuracy of attributed norms and expectations held by persons in groups (which differ from highly-connected networks in that their boundaries are delineable and the interaction is more "constant"), highly connected networks, and dispersed networks: the 'closer' the organization, the greater the accuracy. Bott claimed that not only accuracy, but degree of consensus and "ease of stating norms" were related to connectedness. The relationship was positive (high connectedness associated with high consensus) and monotonic. She claimed also that a tendency to treat one's own norms as generally held was inversely related to connectedness in the families interviewed.

Couch (1956) administered questionnaires to college married couples to assess norms for the marital behavior of their spouses, and norms attributed to the spouses for their own marital behavior. A hypothesis that the accuracy of the attributed norms would increase with time was confirmed for the wife's attributions; and results for husbands were in the direction predicted though not statistically significant. Couch used a dichotomous criterion for his independent variables: less than two years, and more than two years of marriage.

Although accuracy has received some attention, the veridicality variable is almost entombed in the role literature, both speculative and empirical. It is simply assumed, usually. Reasons for this slighting are suggested in Kaye, Bennett, Miller and Biddle (1961).

It is possible to extrapolate a proposition from an article by Hall (1955) on the role of the commander in the Air Force concerning a

positive relationship between group cohesion and veridicality. Hall's wording was: "The greater the cohesiveness of the [airplane] crew, the more its role prescriptions will be adopted to the aircraft commander's role behavior." In operationalizing the hypothesis, however, no clear measure of veridicality was obtained.

Hypotheses

Before accuracy and veridicality can be meaningfully spoken of, it must be assumed that some sort of communication has taken place relevant to the cognitive elements or behavioral elements mapped by the subject person. This communication may or may not occur between the subject and the object (in the case of veridicality) or between the subject and the content-object (in the case of accuracy). And the communication may be direct or quite indirect. For instance, in the case of veridicality, the information-transmission may involve the observation by the subject of the object performing the behavior that is mapped--certainly a case of direct relevance. Or the relevant information might be a statement transmitted by a person other than the object concerning some presumed trait of the object from which the subject could then imaginatively derive a notion of the object's probable performance in the behavioral area in question.

Whatever its nature, however, some sort of communication must have taken place; and it is the contention of this paper that an examination of the dimensions of this communication constitutes the most profitable framework for discussing the antecedents of both veridicality and accuracy.

Two of these dimensions have been mentioned already--variations in source, and variations in relevance of information to the cognitive and behavioral elements for any case of veridicality or accuracy. Among the other dimensions are: amount of information-transmission, the nature of the information, the relation of the information to the motivational and cognitive structures of the recipient, and validation processes.

For purposes of this paper, nothing like a thorough and systematic discussion of information and communication processes will be attempted, of course. Nor will a rigorous and detailed theory of the relationship of communication-dimensions to accuracy and veridicality be stated, though such a theory would be interesting. Instead, the present theoretical rationale is in the nature of a first approximation to the problem, and is thus of a fairly general and even common-sensical nature. Further refinements would await a more extensive empirical investigation than was possible given the limitations of the present study.

Information transmission. The transmission and storage of information takes time. And in general, the more information that is transmitted and stored, the more time is consumed. Feedback-validation processes also take time.

If every bit of information relevant to a given pattern is transmitted to a subject, and no distortion exists in the source, channel, or recipient, it would be expected that the accuracy or veridicality of the pattern then stored by the subject would increase rather abruptly

when plotted along the time dimension, and level off to asymptotically high accuracy or veridicality. It is assumed in this case that some program is operative within the recipient for the storage of the information in question.

If such optimal conditions of communication do not exist, however, the picture becomes more complicated. Sources of error in the final pattern stored--i.e., determinants of less than perfect accuracy or veridicality--must be taken into account. There are several sources of such error. First, relevant information may simply not be transmitted. It may either not be sent, or it may be washed out in the channel. Second, if it is sent, and is not the victim of noise in between, the information may be lost so far as the subject is concerned in the processes of encoding, internal transmission, and so on because of some lapse of attention or channel overload. These two sources of error may be said to have to do with 'ignorance.'

Third, information may be transmitted but it may be ambiguous, inconsistent, or false in relation to the pattern in question. Or, the information may be distorted by the recipient by reconstituting it in terms of some structure that would lead to a distinctly different pattern upon further transmission. These two sources of distortion are examples of pattern-error which are distinct from the error involved in ignorance-distortion.

Other things equal, the number of source-persons between the object or sentient-object and the subject would appear to be positively

related to the amount of ambiguity, ignorance, falsity, and other distortion in the communication system. Decreasing relevance (and the increasing necessity for inference, guessing, and other indirect cognitive processes) would seem to imply increased likelihood of error.

The amount of validation or rechecking that goes on has as one antecedent the motivation of the checker to satisfy his needs and maintain interaction with the original information-sender; and disregarding the existence of barriers for the moment, the need-involvement of a person for another would generally seem to be positively related to the amount of validation-activity that goes on.

Some time is required for validation procedures, as has been previously mentioned; and accessibility of the source from whom validation is expected is also necessary. Further, the amount of time and more importantly the amount of information-transmission that goes on has implications for the error variables mentioned above. With time, there are not only increased chances for checking of information, but also increased likelihood of redundancy in general, and increased likelihood of more information of (however tangential) relevance increasing the possibility of sounder inferences.

Positional experience and accuracy. The longer that a person is active as a member of a social position, the more experience he has with members of his own and of relevant alter positions. In other terms, more information-transmission goes on between the member of a subject-position and members of positions that are related to his

position by institutional structure, habits of interaction, functional requirements, and so on.

It follows that the accuracy of a second-order cognition held by a member of position X about the first-order cognitions held by members of position Y (which may be the same position as X) will increase as the length of that person's positional membership increases. The information-transmission may occur directly between the member of X as a subject-position and members of Y as a sentient-object position. That is, the person in X will have increasing opportunity, with time, to assess the cognitive structure of Y members by observing their behavior and making inferences to presumed cognitions.

On the other hand, the information-transmission may occur between the member of X as a subject-position and members of positions other than the sentient-object position, Y. In this latter case, the information transmitted will be one or more steps removed, in terms of source, from the sentient-object position, and hence more subject to error. However, both sorts of communication are expected to lead to increased accuracy, according to the propositions stated in the previous section.

A role-cognition attributed to members of the sentient-object position may be concerned with the role-behavior of members of the subject position (here in the guise of an object-position) or it may be concerned with the role-behaviors of members of a position other than the subject-position. In either case, accuracy is expected to increase with positional experience, although presumably it would increase more rapidly if the subject-position is also an object-position for the

sentient-object's presumed cognitions, for motivational reasons.

Hypothesis I: The longer a person is a member of a position, the more accurate he will be in attributing cognitions to members of his own position and to members of relevant alter positions.

This hypothesis is in line with the findings of Bott (1956) and Couch (1958). In both Couch's tested hypothesis, and in the empirical generalizations and related speculations by Bott on her field study of marital norms, the independent variables affecting degree of accuracy may be simply stated as amount of experience. As the length of marriage increases (for Couch's subjects), and as degree of connectedness of the social collectivity becomes denser (for Bott's interviewees), the social actors involved have more experience with one another. Thus, what on the surface is primarily a temporal variable (length of marriage) may be interpreted in the same terms as what is on the surface a social-structural variable (connectedness of social networks). Another way of stating this variable is amount of communication. Presumably the people in Bott's highly-connected networks had more communication with one another than those in the loosely-connected networks; and a married couple have more instances of communication as time goes on.

The present theoretical discussion is also in line with the emphasis on communication by Brookover (1955) and Bates (1961), and with the implicit importance of communication in Rommetveit's (1954) comments on checking and validating in new role-situations.

The two subject-positions used in the present study were the teacher position and the education-student position. The sentient-object positions were teachers, school officials, and people in general. The object position--that is, the position to whose behaviors the role-cognitions referred--were the teacher position.

For teachers as subject-position, no particular comments are in order in relation to Hypothesis I. For the education students as subject-position, it is expected that the greatest increases in accuracy will occur as a result of practice teaching, which usually occurs in the last year of undergraduate training. During practice teaching, education students have more direct contact with actual public school teachers and officials. Actual classroom experiences makes the whole matter of teacher role behavior more 'real' to them, and perhaps more motivationally salient.

Besides practice teaching, however, one might expect other aspects of training ineducation school to result in some distinct distortions of what people expect and want teachers to do, above and beyond errors stemming from 'ignorance'-determinants and even beyond the usual incidence of other pattern-error. For instance, it may be that a certain amount of systematic distortion in the direction of idealization characterizes recruitment procedures for the teaching profession, or that a certain amount of idealization, or viewing the school room through Dewey eyes, often stems from motivational factors or phenomena of late adolescence in the would-be professionals. Or,

it may be that the ideology of the educators of educators is quite consistently out of line with what happens in the real world of teaching; or that certain biases may be inculcated in the education students to the end of improving or otherwise changing professional practices.

Positional experience and veridicality. In the case of veridicality, also, increasing length of positional membership will involve more information-transmission--including observation of the behavior that is mapped by the subject, transmission of information about this behavior from both members of the object position and related positions, and transmission of other information from which the subject might deduce probable behavior of objects.

Hypothesis II: The longer a person is a member of a position the more veridical will be his cognitions concerning the characteristics (e.g., behaviors) of his fellow position-members and those of members of relevant alter object-positions.

This hypothesis is derived from the same considerations as was Hypothesis I. Both merely state that "an increase" will occur, it will be noted.

Possible qualifications of the hypothesis for education students as the subject position are analogous to those sighted above for accuracy--professionalization bias, and so on.

Expected differences between accuracy and veridicality will be discussed in a later section.

Positional distance and accuracy. What is here termed 'positional distance,' like the 'positional experience' variable discussed above,

boils down to amount of interaction, or amount of communication. The 'distance' of one position from another is here defined simply in terms of the amount of information sent and received. The term as here used does not refer to the same sort of thing as "social distance," as measured by a Bogardus scale. Nor does it refer to functional interdependence, though it is presumably a closely related variable in many cases. The similarity of 'distance' to Bott's network density concept should be noted, also.

Since distance is defined in terms of information-processing, it follows that distance and accuracy are inversely related, for cognitions attributed by members of one of these positions to members of the other position.

Though similar in derivation, positional distance and positional experience are separable in terms of measurement. The latter is a temporal variable and the effects of positional distance are presumed to 'cross-cut' those of positional experience. That is, for any given length of positional membership, the degree of accuracy will be greater the closer the sentient-object position is.

For positional experience, not only relevant communication occuring between the subject-position and the sentient-object position, but also communication about the sentient-object position occuring between the subject position and other positions were hypothesized to have effects upon accuracy. However, in the case of positional distance, the effects are most clear for communication between the subject and the sentient-object position.

Hypothesis III: The less the distance between two social positions, the more accurate will be members of one of these positions as subjects in attributing cognitions to the members of the other position as content-objects.

No prediction was made concerning positional distance and veridicality (though it would have been analogous to Hypothesis III) since no test of such a hypothesis was possible with the data analyzed.

Accuracy and veridicality compared. Since both accuracy and veridicality are resultants of information-transmission and storage, and similar conditions hold in the etiology of both, many propositions stated about one of the variables can be reasonably stated about the other. For instance:

Hypothesis IV: Increases in veridicality and accuracy associated with length of positional membership will be monotonic and curvilinear, the greatest increases in veridicality and accuracy occuring relatively early during the span of positional membership and levelling off thereafter.

The preceding hypothesis is based on (1) the general shape of 'learning' curves ("monotonic and curvilinear"), (2) the well-known facility of the human organism for rapid cognitive learning ("relatively early during the span of positional membership"), and (3) considerations of motivation and social adjustment-information seeking among members of one's own position and members of related positions is considered highly desirable for getting along in the social world.

Despite similarities, however, veridicality and accuracy are not identical either conceptually or in terms of presumed antecedents. The main difference lies in the nature of what is mapped. Veridicality has to do with the mapping of a behavior; accuracy, with the mapping of a cognition. And while behaviors can be directly observed, cognitions cannot. The communication process in relation to accuracy is in the beginning, so to speak, saddled with more ambiguity than is the case with veridicality; and this initial ambiguity might be expected to lead to more error of all sorts in the communication process than would exist in the case of veridicality. More error implies less accuracy.

Hypothesis V: Veridicality will increase more rapidly than accuracy, and will in general be greater than accuracy, for the characteristics (e.g., behaviors) and cognitions of a position that is both object and sentient-object.

Item differences. Apart from the more formal hypothesis-testing outlined above, it was felt that individual content items would show differences with respect to veridicality and accuracy. No predictions were made as to which items would show relatively widespread discrepancies or in which direction these discrepancies would appear.

The prediction of item differences in accuracy and veridicality was based partly on the assumption that some behavioral areas might be 'touchy' for teachers, or might be more related to more 'internal'

motivational factors, or else to as yet unsystematically understood conditions of the social space relevant to Kansas City teachers. In other words, the present study was done not only to test hypotheses but also to explore a body of data for possible insights and empirical generalizations.

II. Methodology

Data had been collected from respondents in the Kansas City Greater Metropolitan area at the time the hypotheses were formulated, as part of a larger project on the role of the public school teacher in Kansas City. Although preliminary reports on other analyses of some of the data used in the present study were known to the author at this time, the nature of this knowledge in no sense violated canons of proper hypothesis-testing procedure.

The Instrument

Data were collected using a series of questionnaires during group interview sessions during the winter and spring of 1959-60. The instrument analyzed here consisted of ten to eleven pages of close-ended items (see Appendix I) assessing expectations, norms, attributed expectations, and attributed norms for the behavior of public school teachers.

Fifty items were included in the form, each concerning a teacher behavior in a specific background or setting. The content of the items was chosen from results of earlier studies in the Kansas City area (see Biddle, Rosencrans, & Rankin, 1961, Vol. I, pp. 48-49). Content was chosen for estimated salience to respondents in light of the earlier findings.

Each of the items was rated on a five-point scale ranging from (1) "little or none" of the behavior, to (5) "a great deal" of the

behavior. A sample item appears in Figure 2.1.

Respondents were asked to rate the behavioral items for:

(1) their own expectations

(2) expectations attributed to people in general

(3) expectations attributed to school officials

(4) expectations attributed to teachers

(5) their own norms (both positive and negative

(6) norms (positive and negative) attributed to people in general

(7) norms (positive and negative) attributed to school officials

(8) norms (positive and negative) attributed to teachers.

In addition, respondents in the teacher position were asked to report on their expectation for their own individual behaviors, that is, to report what they actually did.

Because of the length of the questionnaire, the 50 behavioral items were split into five 10-item sub-forms; each respondent filled out one of the sub-forms. Unfortunately, only 30 of the 50 behavioral items were usable in the analysis. Because of a secretarial mistake, only a handful of respondents were administered two of the sub-forms.

Subjects

Respondents included members of several social positions defined in relation to the teacher position: teachers, parents, principals, superintendents, and school supervisors; and education and non-education students at the University of Kansas City.

WHAT DO SCHOOL OFFICIALS EXPECT OF TEACHERS

Visiting with parents during PTA meeting in the auditorium

School officials expect that in the public school auditorium during a PTA meeting most teachers would do:

A great deal of visiting with parents	5
A lot of visiting with parents	4
A moderate amount of visiting with parents	3
A slight amount of visiting with parents	2
Little or no visiting with parents	1

Figure 2.1.

Sample item from questionnaire: expectations attributed to school officials for teachers' visiting with parents during PTA meeting in the auditorium.

The education student sample included approximately 85 per cent of all education students then enrolled. The non-education student sample was chosen randomly with the restriction that it roughly match the education student sample in terms of years of education completed.

The other sample was stratified according to community size, size of school, level of school; but was otherwise random. Further details of the sampling procedures may be found in Biddle, Rosencranz, and Rankin (1961, Vol. I, pp. 13-19).

A list of n's for the various positions is given in Table 2.1, divided according to which sub-form of the questionnaire was answered.

Non-education students and parents were lumped into a 'people in general' position; and school supervisors, principals, and superintendents were lumped into a 'school officials' position for purposes of analysis. If 'people in general' is taken to mean 'the public at large,' the combined non-education student and parent grouping does not represent anything like a random sample of the public, or perhaps even a representative one. However, it was felt that this grouping constituted a reasonable approximation, given the available material.

Independent Variable Categorization

The two subject positions, that is, the two positions whose accuracy and veridicality were assessed, were (1) education students, and (2) public school teachers. These two positions are what might be called sequential positions, analogous to the adolescent-adult positional sequence in the society at large: membership in the first position is

Table 2.1.

Number of respondents by position, sub-form administered, and years of experience (for education students and teachers).

	Form A	Form B	Form C	Total
Position:				
Education Students				
Juniors	7	7	14	28
Seniors	9	11	16	36
Total	16	18	30	64
Teachers				
1-5 Years	6	8	5	19
6-10 Years	7	4	3	14
11-15 Years	7	6	2	15
16-20 Years	8	5	1	14
21-40 Years	2	7	4	13
Total	30	30	15	75
People in General				
Non-education students	27	21	52	100
Parents	75	71	46	192
Total	102	92	98	292
School Officials				
Supervisors	6	4	1	11
Principals	5	8	4	17
Superintendents	7	6	3	16
Total	18	18	8	44

generally prerequisite for membership in the second position, though of course not all education students become, or remain, teachers.

Positional experience. The main independent variable was 'positional experience,' or 'length of positional membership.' A two-way breakdown of the variable was made for the education student position: (1) junior standing or less, and (2) senior standing or higher. Only a handful of education students in the sample had attended fewer than three years of college or more than four years. The junior-senior breakoff point is a crucial one because practice teaching, which was expected to have consequences for degree of accuracy and veridicality (see discussion in Chapter I), normally occurs during the senior year. At the time that the questionnaire was administered most if not all of the senior education students had already participated in at least one semester of practice teaching.

For the teacher position, respondents were categorized according to number of years of teaching experience: (1) one to five years experience, (2) six to ten years experience, (3) 11 to 15 years experience, (4) 16 to 20 years experience, and (5) 21 to 40 years experience. The five-year intervals were the smallest that the size of the n's would allow, unfortunately. It was felt that a year-by-year breakdown, at least for the first few years of teaching experience, would have been more desirable.

Strictly speaking, the hypotheses concerning positional experience are more suited to testing with the same members of a social position

at different points in time, than they are for different members in different time slots. For instance, in the former, one would measure teacher accuracy at the beginning of teaching, then measure the same group of teachers at later times in their span of positional membership. Using different respondents in different experience-categories may not provide a fair measure of trends in accuracy and veridicality, except for the most constant and homogeneous social system.

A related possible source of error has to do with teacher attrition. There may be systematic differences of relevance to accuracy and veridicality among those teachers who drop out of the profession (or education students who never enter teaching) in comparison with those who continue.

In addition to the above categories, the two positions were analyzed as wholes: (1) all education students, and (2) all teachers.

A list of n's of the educat[illegible] teacher groupings, displayed for th[illegible] and sub-form of the instrument administered, is given in Appendix A.4.

It will be noted that some of the cells in Table 2.1 contain n's that are quite small, despite the grouping for teachers by five-year intervals.

Positional distance. For teachers as subject position, teachers as sentient-object position were assumed to have the least 'distance,' since they were identical with the subject position. The school official position was assumed to be second closest, since it is [illegible] object

institutional relation with the teacher position. And the people in general position was assumed to be the most 'distant.' Strictly speaking, positional distance is an empirical matter to be assessed by some measure of frequency of interaction or amount of communication. However, it seems likely that such an investigation would come up with the same distance ratings as those proposed above.

For interpreting measurements of the accuracy of education students as subjects, the positional distance rankings are less clear. On the one hand, education students are in apprenticeship for the teacher position so they might be considered closest to teachers. On the other hand, education students presumably have more everyday interaction with non-education students than they do with public school teachers, though the communication involved in such interaction may have little to do with expectations and norms for teacher behaviors in the content-areas studied. Furthermore, though education students might be expected to have little interaction with school officials, it is possible that their education professors are either former school officials or are otherwise similar to school officials, and some of their textbooks may be written by or contain quotations from school officials. It is quite likely also that the education professors are former public school teachers, though this former positional membership may have occurred some time previous to their interaction with education students.

Somewhat arbitrarily, the rankings of positional distance in relation to the education student position were assumed to be the same as those in relation to the teaching position, but for different reasons. That is, teachers were assumed to be closest, school officials second closest, and people in general least close.

Data Analysis

Accuracy was measured by comparing the cognitions attributed by teachers and education students to school officials, people in general, and the teacher position as a whole, with the actual first-order cognitions of school officials, people in general (i.e., parents and non-education students), and teachers.

Veridicality was measured by comparing the expectations of teachers and education students for teacher behaviors with the behaviors reported for themselves by individual teachers.

Thus, ten kinds of comparisons were made, nine for the dependent variable accuracy, and one for the dependent variable veridicality.

Statistical analysis of accuracy and veridicality. The bulk of the statistical analysis of the data utilized the Mann-Whitney z_U test for the significance of the difference between two rank sums (Siegal, 1956, Riddle & Simpson, 1961) z_U's were computed on a Burroughs digital computer for each of the ten kinds of comparisons: accuracy of expectations, positive norms, and negative norms attributed to people in general, school officials, and teachers, and veridicality of expectations

about teacher behaviors. Since each kind of comparison involved nine independent variable categorizations (two length of positional membership categories for education students, five such categories for teachers, and the two lumped catagories of all education students and all teachers), across 30 behavioral items, a total of 2700 statistical comparisons was run.

This procedure was chosen after an examination of tables containing all response distributions displayed against the length of positional membership variable. The examination indicated that a rather minute analysis of the data was called for, and that an item-by-item analysis would at that point be more fruitful than alternatives such as correlational analysis.

Tables were constructed for each item of comparisons significant at $p < .05$ (two-tailed test), in which the ten types of comparisons were displayed against the nine independent variable categories. These 30 tables also showed mean differences for significant comparisons.

In addition, tables for each kind of comparison were constructed displaying the independent variable divisions against the 30 behavioral items.

The above tables were made to facilitate interpretation of results in terms of hypotheses tested, and to facilitate further exploration of the data.

Other numerical analysis. At this point, a minute analysis of item significance was available, and a great deal of numerical summary

had been tabulated for interpretation. However, only trends in overall accuracy and veridicality were to be found in the tables listing number of significant differences for each type of comparison divided in terms of the length of positional membership.

In order to determine what further statistical analysis should be done, if any, the comparison between expectations attributed by teachers and education students to people in general with the actual expectations of people in general was examined more closely. This comparison had produced the greatest number of statistically significant differences in the z_y item analysis.

First, mean differences were computed for each independent variable grouping across all thirty items, regardless of their significance in the z_y analysis. Each of these difference scores constituted a measure of accuracy for the item involved, since one mean represented the first-order cognition distribution for that item and the other mean represented the corresponding second-order cognition distribution.

Each difference score was assigned a rank of greater-than, less-than, or equal to the score of the next most experienced independent variable grouping for each item, and a sign test (Siegal, 1956) was run.

Then the absolute values of these difference scores was summed for each independent variable grouping[1]. These sums gave a measure of

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[1]The formula used was $\sum_{i=1}^{30} |\bar{X}_2 - \bar{X}_1|$, where i = item number.

of overall accuracy for the universe of 30 behavioral frameworks involved. In addition, only those difference scores for comparisons that had produced significant a_{ij}'s were similarly summated[2]. Groupings of items according to content similarities were analyzed similarly.

Owing to the results of the above, no further statistical testing of the data was performed (see comments in Chapter III).

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[2]This formula was $\frac{\sum_{i=1}^{n} |\bar{x}_1 - \bar{x}_2|_i}{n}$

where i = statistically significant comparison, and n = total number of significant items for the independent variable grouping in question.

III. Results for 'Overall' accuracy and Veridicality

Support or lack of support for the five hypotheses stated in Chapter I was determined in three ways: (1) for each item; (2) for groupings of items according to some common content, such as class of behavior, target of behavior, background of behavior; and (3) for all items included in the instrument, taken as a whole. In this chapter, results from the third way of analysis--trends in 'overall' or 'average' accuracy and veridicality--will be given. In a later chapter, a more minute analysis of the results will be given.

Number of Significant Differences

Type I errors. Of a total of 2700 Mann-Whitney z_U's, 230 were significant at $p < .05$, including 60 significant at $p < .01$ and 20 at $p < .001$. We would expect only 135 comparisons to show significance at $p < .05$ or less, so we may assume that the overall data are not simply random.

Accuracy: overall pattern. Table 3.1 shows the number of item-comparisons that were significant at $p < .05$ (two-tailed z_U) for each type of accuracy comparison. These counts were taken as indicators of 'overall' accuracy.

This interpretation requires the assumption that those item-comparisons shown to be significantly different represent inaccuracy on the part of the education students or teachers, and that item-comparisons not significantly different represent accurate cognitions.

Table 3.1

Number of Mann-Whitney z_U's Significant at $p < .05$ or less, for Accuracy Comparisons

	Subject Positions								
	Education Students			Teachers					
Accuracy of Attributed:	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Expectations to									
People in General	5	4	6	4	2	1	4	5	5
School Officials	3	3	6	3	1	0	3	1	3
Teachers	2	5	7	2	1	0	1	1	1
Positive Norms to									
People in General	8	5	9	4	1	2	4	0	7
School Officials	3	3	3	2	2	0	1	3	4
Teachers	5	1	6	1	1	0	1	1	1
Negative Norms to									
People in General	4	1	2	3	3	2	3	2	6
School Officials	6	1	5	2	1	1	1	1	3
Teachers	4	1	2	1	2	2	3	1	2
All Cognitions to									
People in General	17	10	17	11	6	5	11	7	18
School Officials	12	7	14	7	4	1	5	5	11
Teachers	11	7	15	4	4	2	5	3	4
All Sentient-Objects	40	19	46	22	14	8	21	15	32

In other words, accuracy is measured on a two-point dichotomous scale, using the differentiating criterion of statistical significance.

Or, the figures in Table 3.1 can be taken as representing the number of inaccurate cognitions which can be called inaccurate within the certainty limits imposed by the logic of statistical hypothesis-testing. In this case, one says nothing about the number of accurate cognitions, and bases the interpretation of the data as supporting the hypotheses only on those cognitions that one has some certainty in calling inaccurate.

If either of the above ways of interpretation is allowed, then all five hypotheses received some support for both of the subject-positions, until the 16th year of teaching experience, where a trend toward increasing inaccuracy was found.

Hypothesis I, which states that accuracy increases with length of positional membership, received support from the education student data in six of the nine types of comparisons. Juniors as subjects held more inaccurate cognitions--as defined above--than seniors in attributing expectations, positive and negative norms to people in general; in attributing positive and negative norms to teachers; and in attributing negative norms to school officials. Juniors held as many inaccurate cognitions as seniors in attributing both expectations and positive norms to school officials. In attributing expectations to teachers, however, senior education students were less accurate than were junior education students.

The positional distance hypothesis, III, received some support from both junior and senior education student comparisons. Disregarding cognition-type, juniors were more inaccurate in attributions to the people in general position than they were in attributions to school officials, and more inaccurate for school officials than for teachers as sentient-objects. Senior education students misattributed more cognitions to people in general than they did to school officials and teachers, but were significantly inaccurate in as many cases of attributing cognitions to teachers as in attributing cognitions to school officials. As a whole, education students were slightly more accurate in attributing cognitions to teachers and school officials than they were for people in general. In the breakdown by cognition-type, the above results were not obtained.

Hypothesis IV could not be tested with education student data, since curvilinearity cannot be assessed from only two values of the independent variable.

For teachers as the subject-position, Hypothesis I, that accuracy increases with length of positional membership, was largely supported for the first fifteen years of positional membership. This is seen most clearly for the total number of significant differences for each years-of-experience category. In the sixteen to twenty year category, however, the total number of inaccurate cognitions increased; and the number of inaccurate cognitions increased for eight of the nine types of comparisons. For the twenty-one to forty year

category, relatively fewer inaccurate cognitions were found. This non-monotonic trend was contrary to the prediction of Hypothesis IV.

In other words, past a certain point, teachers with more experience were more inaccurate in attributing cognitions to people in general and school officials than were teachers with less experience. It would appear that as middle age sets in so does distortion by teachers about what other people expect and want them to do. This lack of accuracy may have little or nothing to do with wearing out of the cognitive apparatus, however, or even with decreased concern about what others think. All of the teachers with 16 or more years of experience started teaching before or during World War II. The fact of social change in American society is abundantly documented. These teachers received their professional training and some of their early socialization and other experience as members of the teaching position some time ago. People in general may hold different cognitions for teacher behavior now; school officials may also have changed. These more experienced teachers might have been quite a bit less inaccurate in attributing role-cognitions had their responses been compared with people in general and school officials response.. made 15 or more years ago. In a sense, these teachers may be to some extent 'living in the past,' assuming that people really haven't changed in what they think about the teacher position.

It should be pointed out, however, that this finding of increasing inaccuracy in more experienced teachers is not pronounced. For instance,

the teachers with 16 to 20 years of experience are inaccurate for only 21 out of a possible 270 item-comparisons.

For the most part, the positional distance hypothesis (III) was confirmed by teacher data. For attributed expectations and positive norms, the number of inaccurate cognitions was greater for positions more 'distant' from the teacher position, except in the six to ten and 21 to 40 years categories for positive norms. In these categories, teachers were relatively more inaccurate in attributing cognitions to school officials than to either people in general or to teachers. In attributing negative norms, teachers were slightly more inaccurate for the teacher position as sentient-object than they were about school officials, in the six to twenty years category.

Disregarding cognition type and totalling for each sentient-object position, Hypothesis III was clearly supported for teachers as subjects.

In summary, for the interpretation of the data utilizing number of statistically significant differences as a measure of inaccuracy:

1. All hypotheses relevant to accuracy alone received some support.
2. Hypothesis I (positional experience) was partly supported for education students as subjects, and clearly supported for teachers with less than 16 years positional membership as subjects.

3. Beyond 16 years, teachers showed a slight trend toward increased inaccuracy. It was suggested that these teachers may have been more accurate in attributing the same cognitions 16 or more years ago, and that social change variable may be relevant here.
4. Hypothesis III (positional distance and accuracy) was partly supported for both education students and teachers, but more clearly for teachers.
5. Hypothesis IV (dealing with the rate of increasing accuracy) received qualified support from teacher data, until the 16th year of teaching experience.

Everything said above about support or lack of it must be strongly qualified, however. At best, the above findings can only be suggestive. The assumption that an item-comparison that is not significantly different represents an instance of high accuracy or veridicality is risky, going strictly by the logic of inferential statistics.

A related qualification has to do with the presence of small and unequal n's in the independent variable groups, as well as in some of the groups with which the independent variable groups' cognitions were compared. The presence of relatively small n's influences the power of the statistical tests. The z_U is one of the more powerful non-parametric statistics; Siegal (1956) reports some evidence that the Mann-Whitney U, of which the Mann-Whitney z_U is the normalized form, has a power equal to 95 per cent of t. Nevertheless the small n matter

is certainly relevant to the practice of assessing accuracy or inaccuracy of cognitions using only statistical criteria. The presence of unequal n's across independent variable groups is more serious. Especially for small n's, differences in n do make a difference in the likelihood of getting statistically significant results. For instance, the relative lack of inaccuracy for the 11 to 15 year teacher grouping as compared with the six to 10 year grouping may be largely a consequence of the fact that n's were characteristically smaller in the former category.

Veridicality: overall pattern. Table 3.2 shows the number of item-comparisons that were significant at $p < .05$ (two-tailed z_0) for veridicality (comparison between expectations for teacher behavior and reported teacher behavior). Of 300 statistical tests only seven produced significant differences; therefore, it was assumed that these findings represented only random significance except for possibly junior education students. The latter, if non-random, would support Hypothesis II.

Because of this lack of significance, Hypothesis V and parts of Hypotheses II and IV could not be tested.

Difference Scores

For the above reasons, support obtained for the hypotheses by the method of counting significant differences was felt to be suggestive but uncertain. Further exploration of the data for the most part

Table 3.2.

Number of Mann-Whitney z_U's Significant at $p < .05$ or Less,
For Veridicality Comparisons

	Veridicality of Expectations for Teacher Behavior
Education Students	
Juniors	3
Seniors	1
Total Position	1
Teachers	
1-5 Years	1
6-10 Years	0
11-15 Years	0
16-20 Years	1
21-40 Years	0
Total Position	0

failed to substantiate the predictions in terms of 'overall' or 'average' accuracy.

In the z_y analysis, the largest number of statistically significant differences were found for the comparison between expectations attributed to people in general and the expectations held by people in general. Table 3.3 shows overall accuracy scores for this comparison obtained by summating the absolute item-difference scores--i.e., a measure of degree of accuracy in terms of scaled differences in contrast with the earlier dichotomous measurement of accuracy vs. inaccuracy.

The amount of accuracy increased only between the junior and senior education student groups, in terms of summated difference scores. For teachers, accuracy generally decreased, a direct reversal of Hypothesis I. Furthermore, teachers with one to five years experience were less accurate than beginning education students. As in the analysis by number of significant differences, 16 to 20 years teachers were more inaccurate than less experienced teachers.

Results of a sign test (see Table 3.4) showed that senior education students were significantly more accurate than juniors ($p < .05$, one-tailed test), but that no other independent variable group was significantly more or less accurate than the next most experienced independent variable group. It is suspected that a stronger test than the sign test might have showed the 16 to 20 year teacher group to be significantly less accurate than the 11 to 15 year group.

Table 3.3.

Summed Discrepancy Scores for Expectations Attributed to People in General

Length of Positional Membership:	Total Discrepancies
Education Students	
Juniors	14.76
Seniors	10.78
Teachers	
1-5 Years	16.08
6-10 Years	16.63
11-15 Years	16.59
16-20 Years	20.84
21-40 Years	19.14

Table 3.4.

Accuracy of Attributed Expectations to People in General: Item Proportions

Years Compared	Number Items >	Number Items <	Number Items =	Sign Test
Juniors to Seniors	21	8	1	*
Seniors to 1-5 Yrs.	18	12	0	n.s.
1-5 to 6-10	12	16	2	n.s.
6-10 to 11-15	15	11	4	n.s
11-15 to 16-20	14	14	2	n.s.
16-20 to 21-40	12	14	4	n.s.

* $p < .05$ (one-tailed test)

Note: Figures in the table represent the number of items (out of 30) of which the item discrepancy score of one independent variable group is greater than, less than, or equal to the discrepancy score of the next most experienced group.

Table 3.5.

Averaged Discrepancy Scores for All Significant Z_U's

	Subject Positions								
	Education Students			Teachers					
Accuracy of Attributed:	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Expectations to									
People in General	.96	.85	.64	1.26	1.11	2.38	1.27	.95	.66
School Officials	1.26	1.30	.89	.91	1.67	.00	1.24	.88	.67
Teachers	1.65	.66	..79	.89	.70	.00	.83	.92	.64
Positive Norms to									
People in General	.97	.78	.66	1.13	1.17	.95	1.33	.00	.63
School Officials	1.18	.97	.92	1.14	1.41	.00	1.06	1.54	.76
Teachers	1.02	.72	.74	.80	.87	.00	1.22	.87	.48
Negative Norms to									
People in General	1.64	1.22	1.11	1.40	1.79	1.81	1.81	1.70	1.02
School Officials	2.14	2.07	1.67	2.63	2.50	1.14	1.06	3.29	1.71
Teachers	1.59	1.62	1.69	2.38	1.00	1.99	1.61	3.33	1.45
Veridicality of Expectations for Teacher Behavior	.92	.40	.85	1.18	.00	.00	1.00	.00	.00

An examination of averaged discrepancy scores of only those item-comparisons significantly different, for all ten kinds of comparisons, provided support for Hypotheses I and II, for education students. These results are shown in Table 3.5. Figures for teacher accuracy and veridicality fluctuated in direction almost randomly from one independent variable grouping to the next.

Summary of Results for Overall Accuracy and Veridicality

Assessment of 'average' accuracy using number of significant differences provided support for those hypotheses having to do with accuracy (I, III, and IV). Only random significance was found for veridicality comparisons, overall, except possibly for junior education student veridicality.

Further exploration of the data using measurements of scale-point differences in accuracy and veridicality, however, provided support only for Hypotheses I and possibly II with education students as subjects.

IV. Results for Analysis by Items and by Content Categories

In the previous chapter, the focus of hypothesis-testing and interpretation was on the 30 behavioral items taken as a whole. In this chapter, the focus is on individual items and on items categorized according to content. This mode of analysis was undertaken (1) to test the predictions given in Chapter 1 on a more minute basis than the previous analysis of 'overall' accuracy and veridicality allowed, and (2) to explore the data for possibly different trends in accuracy and veridicality associated with different behaviors and classes of behaviors. Thus, both deductive and inductive strategies were followed.

Findings for accuracy and veridicality will first be given for individual items, but discussion of these findings will be grouped according to content similarities among the items, in order to facilitate comparisons. Then findings will be given for several content categories with the data for each lumped across several similar items.

Item-by-Item Analysis

Tables 4.1 through 4.20 show mean differences and level of significance for all item-comparisons that were statistically significant using the Mann-Whitney z_U test. Each of these tables contains all significant results for one of the thirty behavioral items in the questionnaire.

Several of the behavioral items were decidedly not productive of significant comparisons; hence, no tables will be presented for them.

These were:

2. Supervising pupils in a classroom test
3. Singing during a classroom singing period
5. Keeping pupils quiet in the library
7. Policing the halls
8. Disciplining pupils during basketball game in gym
17. Allowing pupils to explore during experiments in the laboratory
19. Supervising on playground
23. Grading papers during a classroom singing period
27. Being partisan during football game on athletic field
29. Disciplining pupils in the cafeteria.

In terms of content, the above items have relatively little in common. Presumably, results for the above items indicate high accuracy and veridicality among the respondents, or in other terms only random inaccuracy and nonveridicality.

PTA and other community activities. For the three items concerned with PTA meetings and the one item about participation in community activities (Tables 4.1 to 4.4), there is relatively little similarity in the patterns of significant differences. However, for all four items, respondents were on the whole more inaccurate in attributing cognitions to people in general than to the other two sentient-object positions.

The only prediction that received some support in each of the four items was Hypothesis I, which concerned increasing accuracy with

Table 4.1

Significant Differences for Item 6,
"Speaking Out at PTA Meeting in the Auditorium"

Subject Positions

	Education Students			Teachers					
Accuracy of Attributed:	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Expectations to									
People in General									-.78*
School Officials	+1.49*	+1.28*	+1.38*						
Teachers	+1.80*	+1.14*	+1.45*						
Positive Norms to									
People in General				-.71*		-.92**	-1.34***		-.98*
School Officials	+1.00*		+.75*						
Teachers									
Negative Norms to									
People in General				+1.83*	+1.83*		+1.50*		+1.46**
School Officials	-2.33**		-1.91*						
Teachers									
Veridicality of Expectations for Teacher Behavior	+1.13*		+.85*						

* .01 < p < .05
** .001 < p < .01
*** p < .001

Table 4.2.

Significant Differences for Item 16
"Attending PTA Meetings in the Auditorium"

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General									
School Officials			+.58*						
Teachers									
Positive Norms to									
People in General	+.68*		+.58*		+1.13**	+.97*			+.87**
School Officials									
Teachers									
Negative Norms to									
People in General									
School Officials									
Teachers									
Veridicality of Expectations for Teacher Behavior	+.77*					-1.00**			

* .01 < p < .05
** .001 < p < .01
*** p < .001

Table 4.3

Significant Differences for Item 26,
"Visiting with Parents During PTA Meeting in the Auditorium"

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General	+.91		+.66	+1.51		-2.36			
School Officials									
Teachers									
Positive Norms									
People in General	+1.13		+.85	+1.38					
School Officials									-2.13
Teachers									
Negative Norms									
People in General	-1.03		-.87						+1.97
School Officials									+3.79
Teachers									
Veridicality of Expectations for Teacher Behavior									

* $.01 < p < .05$
** $.001 < p < .01$
*** $p < .001$

Table 4.4.

Significant Differences for Item 30,
"Participating in Community Activities Out of School"

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General	+1.28	+.61	+.32						
School Officials									
Teachers									
Positive Norms to									
People in General	+.98	+.77	+.88						+.52
School Officials									
Teachers									
Negative Norms to									
People in General									
School Officials	-1.25		-1.13						
Teachers									
Veridicality of Expectations for Teacher Behavior									

* .01< p < .05
** .001 < p < .01
*** p < .001

length of positional membership; this support held for education students as subjects but not for teachers. For every combination of cognition-type and sentient-object position where significant differences were found for education students as subject, either (1) junior education students were significantly inaccurate and senior education students were not, or (2) both junior and senior education students were significantly inaccurate, but the amount of inaccuracy as given by mean difference figures was greater for juniors than for seniors.

In general more inaccuracy was found in regard to speaking out at PTA meetings (Table 4.1) than for merely attending PTA meetings (Table 4.2) or visiting with parents during PTA meetings (Table 4.3). Both levels of education students thought that school officials and teachers expected teachers to speak out more than these two sentient-object positions actually expected. In contrast, only junior education students were significantly inaccurate in attributing positive and negative norms to school officials. Also, education students were more inaccurate in attributing expectations than in attributing norms to school officials and to teachers.

Supporting the positional distance hypothesis (III), teachers were inaccurate only in attributing cognitions to people in general for PTA speaking-out. For teacher categories holding significantly different inaccurate norms, there was a trend for more experienced teachers to think that people in general want less speaking out than is actually the case. This trend was not found for attributed expectations or negative norms, however.

Only junior education students were significantly nonveridical about how much speaking out teachers reported doing in PTA meetings, supporting Hypothesis II.

The state of affairs suggested by Table 4.1 is as follows: Education students but not teachers know pretty well how much speaking out in PTA meetings that people in general expect and want of teachers. Teachers think that people in general want less speaking out than they actually do want. It is also known that teachers on the whole report that they do relatively little speaking out in PTA meetings (Biddle, Rosenbreau, & Rankin, 1961, Vol. 3, Appendix C). Perhaps the above inaccuracy stems from some sort of 'projection' attempting to justify the teachers' own unwillingness to assert themselves verbally in PTA meetings--or timorousness, or fatigue at the end of a hard day with the students, or wish to avoid what they suspect might be conflict.

On the other hand, education students think that school officials and teachers expect more speaking out than these positions actually do expect--an inaccuracy in the opposite direction. Furthermore, education students think that teachers do more speaking out than they actually do (though this difference is not significant for senior education students). The picture here may be one of youthful, somewhat idealistic exuberance concerning the assertiveness of the teacher in relation to the community. But this exuberance declines somewhat as the education students get close to actual membership in the teacher position, perhaps indicating that the older education students have already begun to

internalize some of the passivity in relation to the public that teachers exhibit. One wonders if this trend will continue as the education students become teachers, and become further socialized by other teachers. One wonders also what might happen if these young teachers, acting upon expectations attributed to people in general, were actually to exhibit fairly assertive behavior in PTA meetings.

In attributing norms to people in general concerning merely attending PTA meetings (Table 4.2) junior education students and teachers with 6 to 15 years experience were significantly inaccurate. Teachers as a whole were inaccurate also. All of the subject position groups erred in thinking that people in general liked more attending PTA meetings by teachers than this sentient-object position reported liking, though for only three of these categories was the difference significant.

Only junior education students thought that teachers attended PTA meetings more often than teachers reported attending. This nonveridicality is in line with Hypothesis II, and is also in line with the notion of the decreasingly idealistic or exuberant education student.

It is known that teachers report attending PTA meetings almost precisely as much as people in general want them to (Biddle, Rosenkrans, & Rankin, 1961, Vol. 3, Appendix C). It is also known that teachers as a position hold norms for attending less often than they report they actually do attend. One interpretation suggested is that teachers feel some strain in attending PTA meetings, stemming from the discrepancy between the norms held by themselves for their own behavior on the

one hand and their reported behavior, on the other. Perhaps teachers compromise between how often they want to go to PTA and how often they think that people in general want them to--and this compromise between personal preference and distorted attributed norms results in almost precise conformity to the norms actually held by people in general.

Had data been available only for (1) teacher behavior, and (2) norms for teacher behavior held by people in general, the obvious interpretation would have been that teachers were conforming highly to the norms held by people in general. This sort of 'jumping the gap' between behavior of an object position and cognitions held for this behavior by a subject position is apparently assumed in much of the role literature. Additional information on attributed norms and own norms throws doubt on studies of conformity not including consideration of attributed cognitions, and raises questions concerning role-phenomena that are not answered by present data, or by present theoretical accounts.

In the few examples of inaccuracy in regard to visiting with parents during PTA meetings (Table 4.3), younger teachers and education students thought that people in general expected and wanted more visiting than they actually did. For some reason, older teachers thought that less visiting was wanted by people in general and by school officials. Again, junior education students were more inaccurate than senior education students.

For Item 30, "Participating in community activities out of school," (Table 4.4) education students were inaccurate in attributing

expectations and positive norms to people in general. Junior education students were again more inaccurate than seniors, but both groups thought that people in general expected and wanted more participation than was the case.

Deviancy-control. Three of the items (4, 14, and 24) dealt with behaviour of teachers directed towards pupils misbehaving in a classroom setting. The few significant discrepancies found for these items are listed in Tables 4.5 through 4.7.

There is even less similarity in the patterns of significant differences among the deviancy-control items than among the PTA items.

None of the five hypotheses was supported across the three items, except for some indication of the usual finding that junior education students were less accurate than senior education students (Hypothesis I).

Teachers as subjects furnished more examples of inaccurate attributions than did education students as subjects for Item 4, "Ignoring pupils misbehaving" (Table 4.5), and for Item 14, "Telling misbehaving pupils to stop talking" (Table 4.6). For the possibly more 'extreme' behavioral item 24, "Threatening pupils misbehaving in the classroom' (Table 4.7), more inaccuracies were found for education students.

Item 14 is one of the few items in line with Hypothesis I for teacher attributions. Of four instances of inaccurate attribution, three were found for teachers with one to five years experience.

Table 4.5.

Significant Differences for Item 4,
"Ignoring Pupils Misbehaving in a Classroom"

	Subject Positions							
	Education Students		Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General									
School Officials									
Teachers			-.70						
Positive Norms to									
People in General	+.78*				+1.82**			+.79*	
School Officials									
Teachers									
Negative Norms to									
People in General			-1.67**	-1.66**				-.67*	
School Officials			-1.14*						
Teachers									
Veridicality of Expectations for Teacher Behavior									

* .01 < p < .05
** .001 < p < .01
*** p < .001

Table 4.6.

Significant Differences for Item 14,
"Telling Misbehaving Pupils in the Classroom to Stop Talking"

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General			+.71*						+.61*
School Officials				+1.40**					+.81*
Teachers				+1.21**					
Positive Norms to									
People in General									
School Officials				+1.17*					
Teachers									
Negative Norms to									
People in General									
School Officials	-2.58*		-1.75**		-2.58*				-1.52*
Teachers									
Veridicality of Expectations for Teacher Behavior									

* .01 < p < .05
** .001 < p < .01
***p < .001

Table 4.7.

Significant Differences for Item 24,
"Threatening Pupils Misbehaving in the Classroom"

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General									
School Officials									
Teachers									
Positive Norms to									
People in General				-.98	-.49				
School Officials	+1.99*							+1.25*	
Teachers	+1.28*								
Negative Norms to									
People in General									
School Officials									
Teachers	-2.73**			-1.99*		-.69			
Veridicality of Expectations for Teacher Behavior									

* .01 < p < .05
** .001 < p < .01
*** p < .001

Corresponding education student attributions for these three sentient-object and cognition-type combinations were not inaccurate enough to make a statistical difference, however.

In general, little comment seems called for by the specific pattern of significant differences for the three deviancy-control items, other than the above. Hoever, it is interesting that junior education students thought that teachers and school officials wanted more threatening of pupils than these two sentient-object positions actually did want. Perhaps the education students were recalling their own grade-school experiences under teachers such as the 21 to 40 year group, who also misattributed norms to school officials for this content-area. Expectational data does not go along with this interpretation, but it is possible that historically there has been a normative drift in regard to 'gentler' treatment of pupils.

Pupil-surveillance. Three items having to do with watching or not watching pupils (Items 1, 12, and 22) are related in content to the deviancy control items; results for these are given in Tables 4.8 through 4.10. Several other items (2, 5, 8, 19, and 29) are also similar in content, all having to do with teacher-pupil relations of a sort involving discipline or maintenance of order, but none of the latter produced enough significant differences to analyse. Exact phrasing of the latter items is reported in Appendix A.

As for the deviancy-control items, there is little similarity among the patterns of significant differences for the pupil-surveillance items.

Table 4.8.

Significant Differences for Item 1,
"Watching Pupils During Study Period"

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributions:									
Expectations to People in General	+.93			+.83			+1.73		+.89
School Officials									
Teachers									
Positive Norms to									
People in General									
School Officials									
Teachers									
Negative Norms									
People in General									
School officials									
Teachers									
Veridicality of Expectations for Teacher Behavior	-.83								

* .01 < p < .05
** .001 < p < .01
*** p < .001

Table 4.9.

Significant Differences for Item 12,
"Watching for Cheaters During a Classroom Test"

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General		+.78*	+.99*		+1.26**		+1.31**		+.59*
School Officials	+1.35**	+1.66***	+1.45***	+.88*	+1.67***				+.82**
Teachers									
Positive Norms to									
People in General									+.51*
School Officials	+1.26*	+1.26*	+1.25*	+1.11*	+1.96**		+1.26*		+1.38**
Teachers									
Negative Norms to									
People in General				-1.58*					-.86*
School Officials	-2.06*		-1.35*	-1.68*					-1.42**
Teachers				-2.38*		-2.38*			-1.42**
Veridicality of Expectations for Teacher Behavior									

* .01 < p .05
** .001 < p < .01
*** p < .001

Table 4.10.

Significant Differences for Item 22,
"Leaving the Room During a Classroom Test"

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General	-.42*		-.32*						
School Officials									
Teachers		+.49*	+.42*						
Positive Norms to									
People in General		-.58*							
School Officials									
Teachers									+.89*
Negative Norms to									
People in General									
School Officials									
Teachers									
Veridicality of Expectations for Teacher Behavior									

* .01 < p < .05
** .001 < p < .01
*** p < .001

The only inaccurate comparisons for Item 1, "Watching pupils during study period" (Table 4.8) were for expectations attributed to people in general. Junior education students and teachers with one to five years experience were significantly inaccurate, in line with Hypothesis I and also in line with the positional distance hypothesis (III), but teachers with 16 to 20 years experience were more inaccurate than the younger teachers. All instances of inaccuracy were positive: That is, the subject groups thought that people in general expected more watching of pupils during study period than this sentient-object position actually expected.

Junior education students were nonveridical about how much pupil-watching during study period teachers reported doing; they thought that teachers were less vigilent than was the case.

Item 12, "Watching for cheaters during a classroom test" (Table 4.9), produced a striking number of inaccuracies. Most of these were (1) for attributions to school officials, and (2) by teachers with one to five years experience. The greater number of significantly different comparisons involving school officials is contrary to the positional distance prediction (III). Other hypotheses fared poorly also with this item: the usual finding of greater inaccuracy of junior than senior education students was not found, and was sometimes reversed, with the juniors more accurate than the seniors (Hypothesis I). And though more instances of inaccurate attribution were found for teachers with one to five years experience than for other teacher groups categorized according to length of positional membership, in the two cases where

one to five year teachers and six to ten year teachers were both significantly inaccurate in adjacent cells of Table 4.9, the more experienced teachers were more inaccurate.

All the errors were in a positive direction (or, for negative norms, a negative direction). That is, the teachers and education students thought that people in general and school officials wanted more watching for cheaters than the two sentient-object positions actually did want. In the case of attributions to school officials, it is almost as if the item had tapped a sort of stringent superego projected to school authorities--an interpretation not supported by the other deviancy-control and related items, however. In the case of attributions to people in general, it is as if the item had tapped an inaccurate stringent generalized other with classical superego attributes, an interpretation supported by general views of American culture and by Item 1 (Table 4.8) but not by other similar items.

It should be noted, however, that of the thirty items, the one most likely to tap something like 'superego' processes is Item 12. Cheating is usually considered more of a moral problem than is something like talking in class.

If, as has been suggested in the analysis of Table 4.7, there has been some normative drift towards less strictness in teacher-pupil relations, one would expect more experienced teachers to be more inaccurate than younger teachers in attributions concerning watching for cheaters. This also was not found. One feels hesitant, on the

other hand, in accounting for the inaccuracies by less experienced teachers in terms of Hypothesis I, since this hypothesis was not supported for similar items.

Of the few significant misattributions for Item 22, "Leaving the room during a classroom test" (Table 4.10), all but one were made by education students, who thought that people in general expected and wanted less leaving the room during tests than these sentient-objects did; and that teachers expected more room-leaving.

Visiting other teachers. Two of the items assessed cognitions concerning teachers visiting other teachers in two backgrounds, the playground (Item 9, Table 4.11) and during study period (Item 11, Table 4.12). A common pattern of inaccuracies was not found for the two items. However, for both items there were more inaccurate attributions to teachers than to the other two sentient-object positions. Also for both items, subject groups overestimated the amount of visiting that teachers expected and approved of, and underestimated the amount of visiting that school officials and people in general expected or approved of.

Table 4.12 ("during study period") presents a more orderly picture than Table 4.11 ("on the playground"). In the former, most of the instances of inaccuracy were found for education students, teachers with one to five years experience, and teachers with 16 or more years experience. Junior education students were more inaccurate than seniors. These findings are in line with Hypothesis I but not

Table 4.11.

Significant Differences for Item 9,
"Visiting with Other Teachers on Playground"

	Subject Positions							
	Education Students			Teachers				
Accuracy of Attributed:	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Expectations to									
People in General									-.97*
School Officials									
Teachers									
Positive Norms to									
People in General									
School Officials		-.91*				-.85*			-.53*
Teachers	+.91*		+.84*	-.91*					-.58*
Negative Norms to									
People in General									
School Officials									+.88*
Teachers	-1.62**	-1.62**	-1.62**			-1.62**	-2.33***	-3.33***	-1.48**
Veridicality of Expectations for Teacher Behavior									

* .01 < p < .05
** .001 < p < .01
*** p < .001

Table 4.12.

Significant Differences for Item 11,
"Visiting with Other Teachers During Study Period"

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General								-.8*	
School Officials									
Teachers	+1.38*	+.49*	+.8*	+.5*				+.9*	+.7*
Positive Norms									
People in General									-.4*
School Officials									
Teachers	+1.5*		+.8*	+.8*					+.4*
Negative Norms									
People in General									
School Officials						-1.0*			
Teachers	-1.0*					-.7*			
Veridicality of Expectations for Teacher Behavior									

* .01 < p < .05
** .001 < p < .01
*** p < .001

Hypothesis III, and in line with the previously suggested social change variable for older teachers.

One might expect these two items to elicit 'stringent superego' projections to school officials since visiting with other teachers is presumably an activity that is pleasant to teachers and may conflict with notions of duty. Such was not the case in terms of inaccuracies: school officials indeed held norms for a relatively small amount of visiting, especially during study period.

Cooperation. Two items had to do with cooperative behavior. Results for Item 10, "Cooperating with other teachers," are given in Table 4.13; results for Item 20, "Cooperating with the principal," are given in Table 4.14. More inaccuracies were found when the principal was the target of the cooperative behavior.

In the independent variable grouping by length of positional membership, only education students and teachers with one to five years experience furnished significantly different inaccuracies. Results were thus generally in line with the positional experience hypothesis for accuracy (I).

Junior education students underestimated the amount of cooperating with other teachers that people in general wanted and expected (Table 4.13). Teachers in the least experienced category thought that people in general disliked more cooperation than they actually did.

Senior education students were more inaccurate than juniors in attributing to teachers expectations and norms about cooperating

Table 4.13.

Significant Differences for Item 10,
"Cooperating with Other Teachers in School"

	Subject Positions								
	Education Students		Teachers						
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General	-1.25*								
School Officials									
Teachers									
Positive Norms									
People in General	-.53*								
School Officials									
Teachers									
Negative Norms									
People in General			+.78***						
School Officials									
Teachers									
Veridicality of Expectations for Teacher Behavior									

* $.01 < p < .05$
** $.001 < p < .01$
*** $p < .001$

Table 4.14.

Significant Differences for Item 20,
"Cooperating with the Principal in School"

	Subject Positions								
	Education Students			Teachers					
Accuracy of Attributed:	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Expectations to									
People in General									+.25*
School Officials			+.35*	+.44*					+.37**
Teachers		-.48*	-.38*						
Positive Norms to									
People in General									
School Officials									
Teachers		-.32*	-.42*	-.46*					
Negative Norms to									
People in General									
School Officials									
Teachers									
Veridicality of Expectations for Teacher Behavior				-.40*					

* .01 < p < .05
** .001 < p < .01
*** p < .001

with the principal (Table 4.14). Senior education students, but not juniors, were also nonveridical. Both these findings are in the reverse of the direction predicted by Hypotheses I and II. All education student discrepancies were negative.

Teachers as a whole overestimated expectations of people in general and school officials. However, these lumped-position discrepancies showed up for only one independent variable grouping by years of experience, and were numerically slight.

In the gym. Items concerning behaviors "during basketball game in the gym" were not very productive of significant comparisons. Item 18, "Kibitzing during basketball game in gym" (Table 4.15), showed a handful of inaccuracies by teachers with 16 or more years experience. Only junior education students and teachers with six to ten years experience were inaccurate for item 28, "Doing menial tasks during basketball game in gym" (Table 4.16).

What there is in "kibitzing" as opposed to "doing menial tasks" that would have to do with differential inaccuracies of younger and older teachers is not clear.

Other items. "Having pupils sing solos during a classroom singing period" (Table 4.17) elicited inaccurate attributions from junior education students and from teachers with over 15 years experience. Juniors overestimated the expectations and positive norms (and underestimated the negative norms) held by people in general; and overestimated the amount of solo-singing that school officials expected

Table 4.15

Significant Differences for Item 18,
"Kibitzing During Basketball Game in Gym"

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General									+1.16*
School Officials									
Teachers									
Positive Norms to									
People in General									
School Officials									+1.06*
Teachers									+1.22*
Negative Norms									
People in General									
School Officials									
Teachers									-1.76**
Veridicality of Expectations for Teacher Behavior									

* .01 < p < .05
** .001 < p < .01
*** p < .001

Table 4.16.

Significant Differences for Item 28,
"Doing Menial Tasks During Basketball Game is Gym"

	Subject Positions								
	Education Students			Teachers					
Accuracy of Attributed:	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21+40 Years	Total Position
Expectations to									
People in General									
School Officials									
Teachers									
Positive Norms to									
People in General	+.95*								
School Officials									
Teachers									
Negative Norms to									
People in General	-1.63								
School Officials	-2.19*								
Teachers							-1.46*		
Veridicality of Expectations for Teacher Behavior							-1.33*		

* .01 < p < .05
** .001 < p < .01
*** p < .001

Table 4.17.

Significant Differences for Item 19,
"Having Pupils Sing Solos During a Classroom Singing Period"

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General	+1.17*						+1.82**	+.86*	
School Officials	+1.82**		+.87*				+1.06*		
Teachers							+.83*		
Positive Norms to									
People in General	+1.33*		+.76*				+1.38*		
School Officials								+.54*	
Teachers									
Negative Norms to									
People in General	-2.24**			-2.07*			-2.27*		
School Officials									
Teachers									
Veridicality of Expectations for Teacher Behavior									

* .01 < p < .05
** .001 < p < .01
*** p < .001

teachers to initiate. Teachers with 16 to 20 years experience were inaccurate in attributing expectations to people in general (as were 21 to 40 years teachers), school officials and other teachers; and inaccurate in attributing positive and negative norms to people in general.

The above findings are in line with the positional experience-accuracy hypothesis (I) revised for social change factors. The positional distance hypothesis (III) is well demonstrated also, especially by figures for teachers with 16 to 20 years experience. Whether or not these two hypotheses are relevant here is of course uncertain in view of the absence of support for them in other items.

Only one to five year teachers were significantly nonveridical about how much solo-singing teachers in general have pupils do as predicted by Hypothesis II.

It is possible that inaccuracies by junior education students for this item might have something to do with notions of encouraging pupils towards more individual expression.

Item 15, "Doing own studying and grading in the library" (Table 4.18), produced a few significant differences with no coherent pattern. Most inaccurate attributions were to people in general, who were cognized as expecting and liking less of this behavior than these two positions actually did.

A somewhat related item, number 21, "Reading own books during study period" (Table 4.19) should perhaps be analyzed with the two

Table 4.16

Significant Differences for Item 15,
"Doing Own Studying and Grading in the Library"

	Subject Positions								
	Education Students		Teachers						
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General				-1.16*				-1.00*	-.72*
School Officials							+1.51*		
Teachers									
Positive Norms to									
People in General									
School Officials									
Teachers									
Negative Norms to									
People in General		+1.22*						+1.43*	+.75*
School Officials									
Teachers									
Veridicality of Expectations for Teacher Behavior									

* .01 < p < .05
** .001 < p < .01
*** p < . 001

Table 4.19.

Significant Differences for Item 21,
"Reading Own Books During Study Period"

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General		-1.03*	-.58	-1.45*					-1.13
School Officials									
Teachers			+.87*						
Positive Norms to									
People in General		-.85*		-1.63*					
School Officials									
Teachers			+.91*						
Negative Norms to									
People in General									+1.57**
School Officials									
Teachers	-1.29*								
Veridicality of Expectations for Teacher Behavior									.82

* .01 < p < .05
** .001 < p < .01
*** p < .001

Table 4.20.

Significant Differences for Item 25,
"Choosing Books for Pupils in the Library"

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General									
School Officials									
Teachers									
Positive Norms									
People in General	+.88*		+.71*						
School Officials									
Teachers									
Negative Norms									
People in General	-1.88*		-1.92*						
School Officials	-2.29*	-2.07*	-2.19*	-3.39**				-2.14*	
Teachers									
Veridicality of Expectations for Teacher Behavior									

* $.01 < p < .05$
** $.001 < p < .01$
*** $p < .001$

"visiting other teachers" items (Tables 4.11 and 4.12). All three have to do with apparently pleasurable activities outside of and even in conflict with the line of duty. The reading-own-books inaccuracies are not similar in pattern to the other two items, however, nor is there any evidence of an inaccurate 'projected superego' to school officials, the latter of whom expected and wanted very little of such behavior. Instead, people in general were seen by senior education students and teachers with one to five years experience as more stringent than they actually were.

Item 25, "Choosing books for pupils in the library" (Table 4.20), produced most inaccuracies for attributed negative norms. The misattribution of positive norms by education students to people in general was paralleled by the negative norm data, but the misattribution of negative norms to school officials was not paralleled by positive norm data. In general, findings for negative norms was not easy to interpret, and seldom paralleled the positive norm data.

Summary of item-by-item analysis. It is difficult to make broad generalizations for the item-table analysis. No consistent patterning of significant differences was found from table to table, even within one content area. One finding of the 'macroscopic' analysis of overall accuracy was found repeatedly in the 'microscopic' analysis, however: junior education students were shown with a few exceptions to be less accurate than senior education students, again and again.

A few of the items were strikingly productive of significant differences. These were:

6. Speaking out at PTA meeting in the auditorium (Table 4.1)
12. Watching for cheaters during a classroom test (Table 4.9)
13. Having pupils sing solos during a classroom singing period (Table 4.17)

Items similar in content to the above three were not similar, however, either in productivity or in patterning of inaccuracies. One implication that can be drawn is that for the analysis of accuracy by positional experience and positional distance, differences in background and in target of the cognized behavior are not particularly meaningful, within the limitations of those items covered by the questionnaire.

It was suggested that distortions by teachers of second-order role-cognitions concerning speaking out in PTA meetings was related to their own unwillingness to speak out, as shown in reported behaviors. Why teachers are unwilling to speak out is a question unanswered by the data, but the high degree of accuracy in other areas suggests that more is at work here than mere conformity to second-order cognitions. Lack of social assertiveness is quite similar to avoidance behavior, which is notably difficult to extinguish.

Some evidence was found for an over-exuberance or over-idealism in education students* , as in items 6 and 13 ("speaking out at PTA"

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*Similar and more extensive evidence is reported in Biddle, Twyman, and Rankin (1962).

and "having pupils sing solos"). This overexuberance, evidenced in attributing cognitions to others for more of some behavior than the others actually expected or wanted, declined somewhat from the junior to the senior year, indicating perhaps increasingly effective socialization, or even a 'calming-down' with increasing maturity.

For the item concerning watching for cheaters in the classroom, the pattern of inaccuracies suggested a 'superego' or 'stringent generalized other' motif at work, but results for items similar in content did not support this notion.

Occasional indications of a historical change in the structure of expectations and norms was found, but with no clear content-area specificities.

Analysis of Summated Discrepancy Scores by Content Area

Two content-area groupings of items were analyzed for amount of accuracy and veridicality summated across the items in each group, without benefit of inferential statistics. The three PTA items and the item having to do with community activities (items 6, 16, 26, and 30) constituted one group; four fairly productive items from the related areas of deviancy-control and pupil-surveillance (items 4, 12, 14, and 24) formed another group.

Summated absolute values of the discrepancies for each type of comparison for each independent variable category are found in Table 4.21 (PTA and community participation) and Table 4.22 (deviancy-control and pupil-surveillance). Measures of accuracy and veridicality in these

Table 4.21.

Summated mean differences for four PTA and Community participation items (6, 16, 26, 30) for both significant and non-significant a_u comparisons

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-20 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General	2.87	1.59	2.17	2.55	2.66	3.26	3.77	2.53	1.56
School Officials	3.58	2.51	3.00	.75	2.10	3.25	1.88	3.41	1.23
Teachers	2.73	1.47	1.97	1.55	1.25	3.52	2.58	2.54	1.03
Positive Norms to									
People in General	3.09	2.02	2.43	3.10	2.93	4.16	4.53	3.15	2.24
School Officials	1.86	1.41	1.67	1.57	2.76	3.96	2.03	3.51	1.57
Teachers	1.63	1.36	1.27	1.13	1.29	2.26	1.83	1.52	.52
Negative Norms to									
People in General	3.09	1.89	3.49	3.38	3.06	4.91	3.85	4.73	2.19
School Officials	4.14	2.65	3.21	2.05	3.25	5.34	2.75	5.20	1.92
Teachers	1.74	1.12	1.44	3.79	2.95	3.84	4.55	5.99	.99
Veridicality of Expectations for Teacher Behavior	3.17	1.69	2.31	1.48	1.23	2.61	3.31	2.49	.57

Table 4.22.

Summated mean differences for four deviancy-control items (4, 12, 14, 24) for both significant and non-significant z_{ij} comparisons

	Subject Positions								
	Education Students			Teachers					
	Juniors	Seniors	Total Position	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-40 Years	Total Position
Accuracy of Attributed:									
Expectations to									
People in General	2.18	2.31	2.26	1.37	2.54	2.25	3.77	1.92	1.68
School Officials	4.02	2.77	3.00	2.91	3.37	2.40	2.64	2.08	2.02
Teachers	1.07	1.14	.85	2.05	1.37	2.33	1.83	1.10	1.04
Positive Norms to									
People in General	1.37	1.22	1.18	2.25	1.18	2.36	2.83	1.43	1.88
School Officials	3.54	2.21	2.81	2.49	3.62	1.50	3.69	2.76	2.49
Teachers	1.77	.95	1.28	2.08	1.66	1.14	2.05	1.66	1.12
Negative Norms to									
People in General	2.52	2.52	1.99	4.24	2.07	3.94	2.76	2.45	2.94
School Officials	5.70	2.56	3.80	3.32	4.70	4.84	2.64	3.08	3.58
Teachers	3.49	2.18	2.93	4.31	4.31	3.64	5.62	5.12	2.52
Veridicality of Expectations for Teacher Behavior									

tables represent scale-point differences, regardless of statistical significance, summated across items that are similar in content. It was assumed that difference-scores lumped across several similar items might bring out trends not apparent from fluctuations in any one item-table. It was also assumed that such a procedure was valid, though questions might be raised about this considering the notable lack of similarity of pattern of significant differences between almost any two item-tables previously analysed with content-similarities.

For both tables, Hypothesis I (increasing length of positional membership implying increasing accuracy) was fairly clearly supported for education students as subjects, but not for teachers. Instead, teachers more often than not were increasingly inaccurate as years of experience increased, with a trend toward increasing accuracy for the last independent variable grouping.

Hypothesis II (increasing length of positional membership implying increasing veridicality) was also supported for education student data, but not for teachers. The latter finding was in reverse of the picture of veridicality obtained in the analysis of overall veridicality by counting number of significant differences.

By and large, senior education students were more accurate than teachers with one to five years experience. This finding does not go along with Hypothesis I, and is also contrary to common sense. Yet this was also found in the analysis of overall accuracy by difference scores for the attributed expectations to people in general (see Chapter 3), and appears to stem from factors other than pure chance variation.

of the high-experience teacher groups for some of the comparison-types--in some cases considerably more accurate.

It would be interesting to assess accuracy from these same education students several years hence, when they are full-fledged members of the teaching profession (and also interesting to see if accuracy is related to which of them drop out of the profession). Will they perhaps be socialised into shared inaccuracies by older teachers?

Hypothesis III (less positional distance implying greater accuracy) was not supported for either education students or teachers as subjects. Nor was Hypothesis IV (increasing, monotonic trends in accuracy and veridicality).

Hypothesis V (veridicality greater than accuracy) was supported by education student data but not by teacher data.

It can be seen from a comparison of Tables 4.21 and 4.22 that teachers and education students were not on the whole particularly more inaccurate for attributions concerning deviancy-control than they were for attributions concerning PTA. Nor were the patterns of relative inaccuracies meaningfully different: findings of the item-analyses were fairly well washed out in the summations.

V. Summary and Conclusions

Review of Findings

In testing the hypotheses about trends in accuracy and veridicality as related to positional experience and distance, data were analyzed on three levels. First, 'overall' or 'average' accuracy and veridicality were assessed by counting number of significant differences between first- and second-order cognition distributions. Mean differences for these significant comparisons were summated and averaged, giving a measure of amount of inaccuracy and nonveridicality, also. Overall accuracy was further analyzed for attributed expectations to people in general by adding all mean differences, regardless of significance. On another level, hypotheses were tested for each of the thirty behavioral items included in the questionnaire. On a level intermediate between these two, the variables were assessed for several content-areas, obtaining accuracy and veridicality scores by summating across several items similar in content.

In the analysis of overall accuracy by counting significant differences, hypotheses were fairly well supported. Hypothesis I, that accuracy increases with positional membership, was fairly well supported until the 16th year of teaching experience when a trend toward decreased accuracy was found. For this latter finding, it was suggested that social change variables might be relevant. Hypothesis III, the positional distance hypothesis, was more clearly supported for teachers than for education students. Hypothesis IV, that trends in accuracy

are monotonic and curvilinear, received some support from teacher data in the early years of teaching experience.

For veridicality, only random significance was obtained, except possibly for junior education student data.

Further exploration of the data using measures of amount of overall accuracy--as contrasted with number of inaccurate vs. accurate cognitions--did not for the most part jibe with the earlier findings. In the earlier analysis, teachers were more accurate as positional experience increased (until the 15th year), but their accuracy neither increased or decreased when data was analyzed by summating mean differences for attributed expectations to people in general. And in contrast for the fairly orderly support for the hypotheses in the earlier analysis, trends in accuracy fluctuated almost randomly in direction when averaged summated discrepancy scores for those significantly different item-comparisons were examined. Only Hypothesis I, for education students as subject position was supported for each of the ways of assessing overall accuracy.

In the item-by-item analysis, clear tests of the hypotheses were more difficult to obtain, owing to the minuteness of the focus and to the relative sparseness of significant item-comparisons from which to judge patterns of findings. However, where sufficient findings were available for an item that patterns could be assessed, the findings were not congruent with directions predicted in a compelling number of cases, except for the finding of increased accuracy and veridicality with length of membership in the education student position (Hypotheses

I and II).

Comparison of findings for discrete items with similar content should practically no similarity in pattern of either significant differences or amount of mean differences from item to item. Indeed, no broad generalizations from the item analysis were felt possible, though several tentative interpretations relevant to individual behavioral items were suggested which fall into the category of "other variables" or "peculiar social patterns" (see Chapter 3).

For the analysis of summated discrepancy scores across several items in a content category, the intermediate level of analysis, Hypotheses I, II, and V were supported, but only for education students as subjects.

Criticism

With the exception of increasing accuracy and veridicality of education students with length of positional membership, the predictions fared poorly. In general, when hypotheses are not supported by a body of data, (1) the theory may be faulty, (2) the derivation of predictions from the theory may be amiss, or (3) the hypotheses may not have been adequately tested. Probably some of all three was the case for the present study.

To review, after some comments on information-transmission, several propositions were stated about communication processes. Then, the discussion of communication was applied to a role-theoretical model of cognizing, behaving social positions in interaction. From this

discussion, several predictions were made and tested involving accuracy, veridicality, positional experience, and positional distance. Something went wrong somewhere. Ideally, in locating what went wrong, one would test some of the assumptions upon which the hypotheses were based--and there were indeed many untested assumptions--along with an ongoing elaboration and critical re-examination of the theory and methodology. Such a thorough procedure is of course not possible at this point.

The relationship posited between amount of interaction and concomitant information-processing on the one hand, and accuracy and veridicality on the other, is apparently not so direct as was assumed. It was proposed in Chapter 1 that with increasing interaction, all sorts of informational error would decrease; and this may be the case, if other variables do not interfere. But in the social world, the plain fact is that such a simple relationship does not always hold.

It is interesting to compare Couch's (1958) study. Couch, it will be recalled, found significant differences in accuracy with length of marriage for attributions of married couples to one another. In this case, the persons to whom cognitions were attributed had certainly been stimuli for the attributors, and it seems likely that communication had gone on between the spouses of direct relevance to the content areas for which accuracy was assessed. It seems likely also that the couples considered these areas important in getting along with one another, and in predicting each other's responses, though the phrasing of the items was fairly abstract.

In the present study, in contrast, it is not certain--in some cases, in fact, it seems unlikely--that the sentient-objects had to any appreciable extent been in contact with the subjects, though members of those positions had been in contact. There is a difference between discrete individuals who are well known, and large multi-person social positions. Further, it seems less likely in the present study than for Cowan's study that information of direct relevance to the content areas assessed was communicated. Differences in importance of content to the social actors involved also hold.

What is communicated about, and why such communication occurs, seems to be an important area here, and one that was largely neglected in the theoretical discussion. It is well known that people are sometimes purposely selective in choice of source-persons (and also books, newspapers, and other channels of communication), and at other times simply do not bring subjects up because of unimportance, or lack of knowledge of the existence of the area, or something of the sort. For instance, it is conceivable that a teacher who has quite a bit of interaction with a variety of other teachers, school officials, and people in general may have never heard a word from them about how much having pupils sing solos in class they think it is desirable.

The importance of the content area to the persons involved is obviously one variable--though in turn what makes an area important is by no means simple. However, there are cases in which important areas are not communicated about much: sex was presumably important to Victorians but was apparently not much talked about.

One variable affecting selection of certain sources of information is the closedness of a person's cognitive system; another may be simply inertia. On another level of analysis, inertia in a social system may be a relevant variable. It is possible to conceive, even, that in some cases a consensual inaccuracy concerning some area may be eufunctional, sociologically speaking.

It is always possible in a field study that uncontrolled and unaccounted for variables may have obscured the effects of the variables upon which the hypotheses depended. It may have been the case, for instance, that the postulated relationship between interaction rate, communication, and accuracy and veridicality was in fact tapped only for education student data, and that for teachers, 'other things' were indeed not equal. The almost random patterning of some of the teacher data suggests the operation of many unaccounted for variables in producing the results. As positional experience increases, not only do chances for communication increase, but also other factors, such as distorting socialization, social change variables, conflictual experiences, and moving about from place to place.

At any rate, it is apparent that positional experience is not a potent enough variable, if it is particularly relevant, to obscure the effects of other variables.

Suggestions for Further Research

The big question, of course, is: just what are these other variables? Several have already been suggested, in the comments on

why is what communicated about. Possibly some of the ones mentioned by Bruner and Tagiuri (1954) from the socalled 'interpersonal perception' studies might provide clues for further investigation.

Motivational variables might also profitably be studied, starting with some proposition such as 'needs influence cognitions'! Bennett has investigated "need for change" in relation to perceived role disparities, apparently the only motivational study in the area, but failed to find any clear relationship (1962). The study of motivational factors and role phenomena would seem to be hampered at this point however by the lack of clear understanding of social motivation.

Conflict variables might also be analyzed, either in terms of discrepant role-cognitions, descrepencies between role-cognitions and role-behaviors, or in terms of historical analysis of conflict-arousing i.e., painful) situations. It was suggested that some of the inaccuracies of teachers in regard to speaking out at PTA meetings may have stemmed from aversive social conditioning, for instance, or from anticipations of aversive conditions.

Other role variables might also be studied in relation to accuracy and veridicality. Among these are the varities of consensus or sharing, behavioral uniformity, and the saliency and importance of role-cognitions. One would expect, for instance, that accuracy would be inversely related to some varieties of consensus.

Just enough support for the predictions was obtained in the present study to suggest further investigation of the 'distance' and

'experience' variables. A study (1) using larger n's, and (2) smaller and possibly more homogeneous social system would be interesting.

A test of the hypotheses using experimentally controlled small groups might also be profitable.

Communication and interaction might be studied more minutely than in terms of mere assumed quantity, also. Some treatment in terms of position in communication networks (cf. Bavelas, 1960) would be interesting, and perhaps more interesting if this approach could be adapted for use with fairly large social bodies in contrast with small groups.

Appendix

The instrument used in this study consisted of several subforms each of which contained ten behavioral items. Respondents were asked for their own cognitions and for cognitions attributed to three positions for each of the ten items. In addition, teachers were asked to report their own behavior for the ten items.

Instructions were the same for all of the subforms and all of the respondents, except for a minor addition for teacher respondents referring to the reported behaviors:

Instructions

We are going to ask you some questions about what you expect, like and dislike teachers to do. We are also going to ask you questions about what you think other people expect, like or dislike teachers to do. In contrast to previous forms, all the questions in this form can be answered by marking an "X" in the appropriate box.

If you will turn to the next page you will see that there are ten questions dealing with different things a public school teacher might do in different situations. For each question, please read the situation carefully and then mark an "X" in the box by the answer which best shows your own expectation for teachers in that particular situation. Please choose only one of the five possible answers for each question. Please answer all questions.

On pages two, three and four, you will be answering questions about what you think other people expect teachers to do in particular situations. These questions are to be answered by placing an "X" in the box by the statement which best indicates your answer. Please answer all questions on each page.

Beginning with page five, the form of the questions changes slightly. On page five you are asked to indicate your likes and dislikes for the same ten kinds of things teachers might do. For each question, you will see that there are two columns of boxes. One column of boxes is marked "MOST LIKE" and the other is marked "LEAST LIKE". For each question you are to mark an "X" in the "MOST LIKE" column to show what

you would least like teachers to be doing. Please answer all questions.

On pages six, seven and eight, you will be answering questions about what <u>you</u> think <u>other</u> people most like and least like teachers to be doing in particular situations. To answer the questions on these pages, you must once again mark a like and a dislike for each question.

Please work as fast as you can. This form is best filled out when you are working at top speed and not lingering over any particular question.

After the instruction page, the instrument consisted of eight pages (nine for teachers). The first of the ten behavioral items for Form A is given below as it appeared on successive pages of the questionnaire.

(p.1) <u>WHAT DO YOU EXPECT OF TEACHERS</u>?

<u>Watching pupils during study period</u>
I expect that during a public school study period most teachers would do:

A great deal of watching pupils	5
A lot of watching pupils	4
A moderate amount of watching pupils	3
A slight amount of watching pupils	2
Little or no watching pupils	1

(p.2) <u>WHAT DO PEOPLE IN GENERAL EXPECT OF TEACHERS</u>?

<u>Watching pupils during study period</u>
Teachers expect that during a public school study period most other teachers would do:

A great deal of watching pupils	5
A lot of watching pupils	4
A moderate amount of watching pupils	3
A slight amount of watching pupils	2
Little or no watching pupils	1

(p.3) <u>WHAT DO TEACHERS EXPECT OF OTHER TEACHERS</u>?

<u>Watching pupils during study period</u>
Teachers expect that during a public school study period most other teachers would do:

A great deal of watching pupils	5
A lot of watching pupils	4
A moderate amount of watching pupils	3
A slight amount of watching pupils	2
Little or no watching pupils	1

(p.4) WHAT DO SCHOOL OFFICIALS EXPECT OF TEACHERS?

Watching pupils during study period
School officials expect that during a public school study period most teachers would do:

A great deal of watching pupils	5
A lot of watching pupils	4
A moderate amount of watching pupils	3
A A slight amount of watching pupils	2
Little or no watching pupils	1

(p.5) WHAT DO YOU MOST LIKE AND LEAST LIKE TEACHERS TO DO?

Watching pupils during study period
I most like and least like teachers during a public school study period to do:

	Most Like	Least Like
A great deal of watching pupils	5	5
A lot of watching pupils	4	4
A moderate amount of watching pupils	3	3
A slight amount of watching pupils	2	2
Little or no watching pupils	1	1

(p.6) WHAT DO PEOPLE IN GENERAL MOST LIKE AND LEAST LIKE TEACHERS TO DO?

Watching pupils during study period
People in general most like and least like teachers during a public school study period to do:

	Most Like	Least Like
A great deal of watching pupils	5	5
A lot of watching pupils	4	4
A moderate amount of watching pupils	3	3
A slight amount of watching pupils	2	2
Little or no watching pupils	1	1

(p.7) WHAT DO TEACHERS MOST LIKE AND LEAST LIKE OTHER TEACHERS TO DO?

Watching pupils during study period
Teachers most like and least like other teachers during a public school study period to do:

	Most Like	Least Like
A great deal of watching pupils	5	5
A lot of watching pupils	4	4
A moderate amount of watching pupils	3	3
A slight amount of watching pupils	2	2
Little or no watching pupils	1	1

(p.8) <u>WHAT DO SCHOOL OFFICIALS MOST LIKE AND LEAST LIKE TEACHERS TO DO?</u>

<u>Watching pupils during study period</u>
School officials most like and least like teachers during a public school study period to do:

	Most Like	Least Like
A great deal of watching pupils	5	5
A lot of watching pupils	4	4
A moderate amount of watching pupils	3	3
A slight amount of watching pupils	2	2
Little or no watching pupils	1	1

(p. 9, Teachers Only) <u>WHAT DO YOU EXPECT OF YOURSELF?</u>

<u>Watching pupils during study period</u>
If I were in a study period, I expect I would do:

A great deal of watching pupils	5
A lot of watching pupils	4
A moderate amount of watching pupils	3
A slight amount of watching pupils	2
Little or no watching pupils	1

The thirty behavioral items used are listed below. Numbers 1 to 10 appeared on Form A; 11 to 20 on Form B; and 21 to 30 on Form C.

1. Watching pupils during study period
2. Supervising pupils in a classroom test
3. Singing during a classroom singing period
4. Ignoring pupils misbehaving in a classroom
5. Keeping pupils quiet in the library
6. Speaking out in a PTA meeting in the auditorium
7. Policing the halls
8. Disciplining pupils during basketball game in gym
9. Visiting with other teachers on playground
10. Cooperating with other teachers in school

11. Visiting with other teachers during study period
12. Watching for cheaters during a classroom test
13. Having pupils sing solos during a classroom singing period
14. Doing own studying and grading in the library
15. Telling misbehaving pupils in the classroom to stop talking
16. Attending PTA meetings in the auditorium
17. Allowing pupils to explore during experiments in the laboratory
18. Kibitzing during basketball game in gym
19. Supervising on the playground
20. Cooperating with the principal in school
21. Reading own books during study period
22. Leaving the room during a classroom test
23. Grading papers during a classroom singing period
24. Threatening pupils misbehaving in the classroom
25. Choosing books for pupils in the classroom
26. Visiting with parents during PTA meeting in the auditorium
27. Being partisan during football game on athletic field
28. Doing menial tasks during basketball game in gym
29. Disciplining pupils in cafeteria
30. Participating in community activities out of school

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